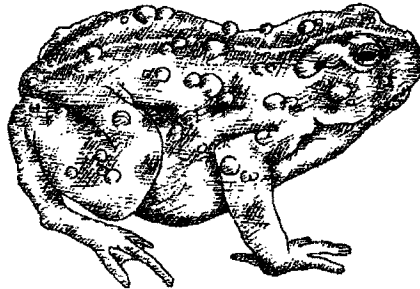


Western Toad

Bufo boreas
Family Bufonidea



FWS Status: Candidate (Boreal Toad subspecies)

BLM Status: Sensitive (ID)

Global Rank: G4

State Rank: S1 (CO, WY); S2 (UT); S3 (AK);
S4 (ID, NV, OR); S5 (CA); S3S4 (MT, WA);
SH (NM)

Distribution: Found along the Pacific Coast from southern Alaska to Baja California, and extending to west-central Alberta, western Montana, most of Idaho and Nevada, central Utah and Colorado, and parts of Wyoming and New Mexico. Absent from most of arid south-west US and southcentral Washington. They occur from sea level to over 11,800 ft. (3,600 m.) in a wide variety of habitats, including desert springs and streams, meadows and woodlands, and in and around ponds, lakes, reservoirs, and slow-moving rivers and streams. Two subspecies are known: the boreal toad (*B. b. boreas*) throughout most of its range, and the California toad (*B. b. halophilus*) in most parts of California.

Description: Adult western toads measure up to 5 in. (12.5 cm.) in snout-vent length. Key characteristics include a light vertebral stripe;



Current range of the western toad

no cranial crests; parotoid glands are oval, well separated, and slightly larger than the upper eyelids; horizontal pupils; dry, warty skin; two tubercles on each hind foot. Dorsal coloration may be brown, gray, or green, and individuals can lighten or darken color to match background. Females reach larger sizes than males. Recently transformed young may have absent or weak dorsal stripe, prominent spotting, and yellow undersides of feet. The western toad has no vocal sac for a loud mating call; their voice is a mellow chirruping.

Reproduction: Breeding usually occurs from late January through July, depending on latitude, elevation, and local conditions. Eggs are laid in two, long, intertwined strands of gel, containing up to 16,000 eggs per clutch. Eggs may be laid on the bottom in slow moving water or wrapped around objects such as sedges and branches. Eggs hatch in 3 to 10 days, depending upon water temperature. Tadpoles may be up to 1 in. (2.5 cm.) in total length, are usually very dark with dark tail musculature, rounded bodies, and intestines usually not visible. The tadpoles are relatively slow swimmers and are often found in dense aggregations of hundreds to thousands of individuals. Larvae metamorphose in the second summer in high elevations and the first summer in other locations.

Food: Adults eat all types of flying insects, spiders, crayfish, sowbugs, and earthworms. Larvae filter suspended plant material or feed on algae and bottom detritus.

Habits: Digs burrow in loose soil or uses burrows of small mammals in or near wet areas. Active at night in warm, low-lying areas; diurnal at higher elevations. Hibernates in winter in cold climates. Tends to walk rather than hop. Adults preyed upon by birds and garter snakes; young fed on by larvae of predatory insects. High mortality may occur

between egg stage and adulthood. Populations appear to be declining in the Greater Yellowstone Ecosystem and in some other parts of their range.

Management Implication: Threats to western toads include loss and fragmentation of habitat and competition/direct impacts from exotic species of plants and animals. While western toads have adapted well to irrigation canals, they are adversely impacted by vegetation removal, changes in water quality, and trampling by livestock; drought and water diversions; and human expansion and developments. The impacts to western toads of increased ultraviolet radiation, parasites, or other factors which may be causing worldwide declines in amphibians are still unknown.

Important References: Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. The Peterson Field Guide Series, Houghton Mifflin Company, New York, NY; Csuti, B., A.J. Kimerling, T.A. O'Neil, M.M. Shaughnessy, E.P. Gaines, and M.M.P. Huso. 1997. Atlas of Oregon wildlife. Oregon State University Press, Corvallis, OR; Groves, C.R., B. Butterfield, A. Lippincott, B. Csuti, and J.M. Scott. 1997. Atlas of Idaho's wildlife. Idaho Department of Fish and Game, Boise, ID.